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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,538	06/21/2000	Carl W. Shonk	60,314-098	7679

26096 7590 08/12/2003

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BIRMINGHAM, MI 48009

EXAMINER

TRAN, DALENA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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EXAMINER
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18

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Commissioner for Patents

## Office Action Summary

**Application No.**

09/598,538

**Applicant(s)**

SHONK, CARL W.

**Examiner**

Dalena Tran

**Art Unit**

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-11 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18,20-22 is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11,13-17,19 and 23-25 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This office action is responsive to the amendment filed on 5/21/03. As per request, claims 1,6,913,18, and 21-24 have been amended. Thus, claims 1-4,6-11, and 13-25 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,6,14-16,19,23, and 25, are rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167) in view of Holland (6,321,091), and Murphy (6,094,164).

As per claims 1,6, and 14, Zijderhand discloses a method for transmitting the location of a vehicle to a location remote from the vehicle comprising the steps: determining a location of the vehicle relative to a road network defined as a first location, and determining a new location of the vehicle relative to a road network defined as a second location (see the abstract; column 2, lines 10-33; and columns 3-6, lines 34-13). Zijderhand does not disclose communicating the location of the vehicle to the remote location at first and second frequency. However, Holland discloses communicating the first and second locations of the vehicle to the remote location at first and second frequency, and second frequency different from first frequency (see columns

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2-4, lines 21-17; columns 4-5, lines 49-16; and columns 12-14, lines 15-3). It is obvious that a third location can be determined between a first and second location, and when communicating the first and second location to the remote location, the transmission of the third location should be kept low by suppressing the transmitting when effective no relevant information can be gathered. Also, Holland discloses in column 2, lines 32-35, that "The rate at which the locator device periodically transmits its positional data varies according to the rate the locator device changes its physical position", and in column 4, line 66 to column 5, line 10, "the tracking distances traveled by the person or object possessing the locator device by maintaining a history of data locations.... This history of data locations is used for determining the rate of change of positional data". Therefore, it is obvious that the distance is represent the rate of change of positional data of the person or object, and this distance traveled can be transmitted at different interval as disclose in Murphy ('164) in column 8, lines 37-63. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand by combining communicating the first and second locations of the vehicle to the remote location at first and second frequency, and second frequency different from first frequency for accurately tracking and monitoring vehicle position and differentiate transmit time when vehicle from position to position.

As per claims 2-3, and 15-16, Zijderhand discloses the location of the vehicle is communicated with reference to the road network, and the road network is a map database (see columns 2-3, lines 49-67).

As per claim 19, Zijderhand does not disclose first and second frequencies are based on a distance traveled by the vehicle. However, Murphy discloses first and second frequencies are

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based on a distance traveled by the vehicle (see columns 7-8, lines 15-63; and columns 10-11, lines 31-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand by combining first and second frequencies are based on a distance traveled by the vehicle for generating respective direction and distance traveled of the vehicle.

As per claims 23, and 25, Holland discloses the frequencies define a data transmission interval (see columns 2-4, lines 21-18; columns 8-10, lines 35-62; and columns 12-14, lines 15-3).

4. Claims 9-10,13, and 24, are rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167) in view of Adolph (6,356,836), and Murphy (6,094,164).

As per claim 9, Zijderhand discloses an apparatus for a navigation system for transmitting the location of a vehicle to a location remote from the vehicle, comprising: at least one position determining device for providing a vehicle location signal, a processor interconnected to at least one positioning device and database for determining the location of the vehicle relative to map, and a transmitter for producing a transmission signal to the remote location having the location of the vehicle (see columns 2-4, lines 49-15). Zijderhand deos not disclose a trigger device. However, Adolph discloses a trigger device for triggering transmission signal, wherein triggering device determines a location of the vehicle relative to road network defines as a first location and determines a change in the location of the vehicle relative to road network defines as a second location, and trigger device automatically commands transmitter to produce transmission signal based upon the change in location (see columns 10-11, lines 65-52; and columns 13-14, lines

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40-2). It is obvious that a third location can be determined between a first and second location, and when trigger device communicates the first and second location to the remote location, the communication of the third location should be kept low by suppressing the transmitting when effective no relevant information can be gathered. Also, Adolph discloses in column 11, lines 19-24, that “the data transmission can take place during the trip, or when the vehicle stops....Data transmission can be triggered automatically after a given period, or coverage of a certain distance, depending on the update value of the data”, and in column 11, lines 40-42, “this update value is offered to the central computer together with a geographical specification”; and in column 13, lines 41-65, the time of motion of mobile unit can be transmitted, therefore, it is obvious that the transmission trigger based on location, and distance traveled, and this distance can be transmitted at an interval as disclose in Murphy (‘164) in column 8, lines 37-63. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand by combining a trigger device for triggering transmission signal, wherein triggering device determines a location of the vehicle relative to road network defines as a first location and determines a change in the location of the vehicle relative to road network defines as a second location, and trigger device automatically commands transmitter to produce transmission signal based upon the change in location for monitoring and transmitting the vehicle position to the remote location to determine real time a position of the vehicle relative to geographic data used by the navigation system.

As per claim 10, Zijderhand discloses the location of the vehicle is communicated with reference to the road network (see columns 2-3, lines 49-67).

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As per claims 13, and 24, Murphy discloses first and second frequencies are different, and frequencies are data transmission interval (see column 8, lines 37-63; and column 10, lines 31-56).

5. Claims 4,11, and 17, are rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167), Holland (6,321,091), Adolph (6,356,836), and Murphy (6,094,164) as applied to claims 1,9, and 14 above, and further in view of Mathis (5,948,043).

As per claims 4,11, and 17, Zijderhand, Holland, Adolph, and Murphy do not disclose the location of the vehicle is determined by map-matching. However, Mathis discloses the location of the vehicle is determined by map-matching (see columns 8-9, lines 54-10; and columns 10-12, lines 62-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand, Holland, Adolph, and Murphy by combining the location of the vehicle is determined by map-matching to provide information about the actual location of a vehicle as it moves over streets.

6. Claims 7-8, are rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167), Holland (6,321,091), and Murphy (6,094,164) as applied to claim 1 above, and further in view of Novik (6,339,745).

As per claims 7-8, Zijderhand and Holland do not disclose the first location is a first street, the second location is a second street, and the first location is a first street address, and the second location is a second street address. However, Novik discloses the first location is a first street, the second location is a second street, and the first location is a first street address, and the second location is a second street address (see columns 9-11, lines 66-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach



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of Adolph, and Holland by combining the first location is a first street, the second location is a second street, and the first location is a first street address, and the second location is a second street address for accurately taking into account additional specific road in which the current location of the vehicle is located, therefore the remote location can accurately detect vehicle at any specific time and locations.

7. Claims 18, and 20-22 are allowable.

#### **Remarks**

8. Applicant's argument filed on 5/21/03 have been fully considered but they are not deemed to be persuasive.

9. Applicant's argument on page 5, in the fourth paragraph that "Zijderhand ('167) transmits information based upon discrete internal change of status of the vehicle. Nowhere in Zijderhand is location transmitted based on location", however, as ('167) discloses in column 2, lines 27-32, one of the discrete internal change of status of the vehicle is a change in the actual physical situation of the vehicle itself; also, in column 5, lines 32-58, the position of vehicle is transmitted during traffic jam; and column 6, lines 14-41, transmit a first actual position and a new actual position. All these are location information transmitted based on location.

Also, on page 5 of the amendment, last 4 lines, applicant's argument that "Adolph ('836) does not trigger based upon location but instead discloses automatically triggering after a given period, or coverage of a certain distance..."; however, ('836) disclose in column 11, lines 21-24, "the data transmission can be triggered.... depending on the update value of the data", and lines 40-43, "this update value is offered to the central computer together with a geographic specification" this means the data transmission of vehicle position of different geographic areas

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can be triggered, for example, in column 9, lines 51-58; and column 10, lines 22-25, the subsequent position of vehicle is recorded and be transmitted; also, in column 13, lines 41-60, the time of motion of the mobile unit, and the total travel time is transmitted. Therefore, Adolph does disclose trigger based upon location.

Examiner maintains that all the references cited meet the language of the claims invention. Therefore, the rejection under 35 U.S.C.103(a) are considered to be proper.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTHS shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136 (a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

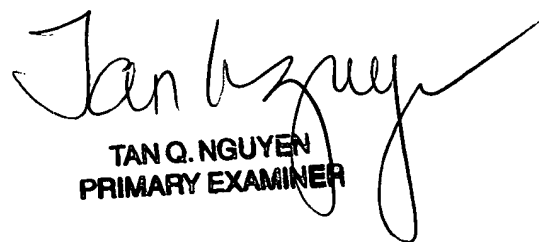
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

  
TAN Q. NGUYEN  
PRIMARY EXAMINER

/dt  
August 8, 2003